Remarks

Regarding numbered paragraphs 1 and 2, a clean copy of the specification is submitted herewith, in addition to the marked-up copy, which was supplied. No new matter has been added to the specification.

Claim Rejections 35 USC 103 (a)

Claims 18, 19, 20-26 and 28-34 stand rejected as being unpatentable over Nevel et al (Nevel) in view of Riley et al (Riley).

Nevel and Riley do not combine to make the present invention, as claimed, unpatentable.

As suggested in numbered paragraph 6 on page 6 of the Office Action, the claims are amended to provide that the measuring device supplies date using a parallel interface and at the same time the measuring device is controlled by a serial interface.

Nevel and Riley do not disclose:

Claim 18: An apparatus that optimizes the development of woven fabrics, comprising:

a display device that displays the woven fabrics that are developed in the apparatus,

a structure input device that inputs freely definable fabric structures for woven fabrics,

at least one measuring device for measuring individual yarn diameters, and

a control and evaluation device that controls the at least one measuring device and the woven fabrics using a serial interface,

and a parallel interface between the measuring device and the control and evaluation device,

wherein the structure input device enables inputting and changing the woven fabrics, and

wherein an actual fabric is computed and presented on the basis of the individual yarn diameters and the freely definable structures for woven fabrics,

whereby a defined structure of the fabric is changeable to adapt and optimize the actual fabric to the measured individual yarn diameters.

And, Nevel and Riley do not disclose:

Claim 34: A method for development of fabrics that optimizes a development of actual woven fabric on the basis of measured yarn data using an apparatus having a display device,

said method comprising the steps of:

measuring individual yarn diameters,

inputting one or more woven fabrics employing a parallel interface for inputting the measured individual yarn diameters, using a serial interface,

computing and representing an actual woven fabric on the basis of the measured yarn diameters and freely definable woven fabrics, and

changing the actual woven fabrics so that the actual fabrics are adapted and optimized to the measured individual yarn diameters and the one or more inputted woven fabrics.

Further Remarks

Submitted herewith is a Xerox copy of a real whiteboard on which real yarn is wound up. The whiteboard in reality has a dimension as mentioned in the American National Standard D2255-79 with the title

Standard Method for a grading cotton yards for appearance.

There are used rectangular whiteboards and conical whiteboards.

The copy submitted herewith shows such a yarn nearly without loss of information. However, please keep in mind that it was necessary to submit two copies which should be combined to a single picture.

The yarn length which may be wound on such boards may be in the range of 50 meters to 300 meters. This length must be divided by two since only one side may be shown.

As shown in Figure 1 and Figure 2 of ASTM D2255 there exists about six standards (pictures) of wound yarns. The gentleman on Figure 2 compares one of the standards to a pattern of a yarn he just had wound up. It may be one of the standard patterns corresponds totally or in part to his sample. Then the gentleman grades his pattern to a standard pattern.

After this by a miraculous insight he is in a position for making conclusions how his sample would look like when this yarn is woven or knitted.

However, this quality control is absolutely useless since:

when this extremely short part would be woven or knitted in the form of a fabric, this yarn represents only less than one percent of the whole appearance in the fabric.

In this technology obviously they judge from less than one per cent of the yarn to one hundred per cent of the fabric. If, for instance, a woven pattern has a length of 50 meters, in this 50 meters the yarn length represents just one length of the warp or about ten lengths of the weft.

In the knitting technique the order of magnitude is the same: In this technique they judge the total appearance of knitted fabric by knowing only one per cent about the yarn used!

Up to this point in these remarks, we have considered only the direct copy of the yarn appearance copied from a real whiteboard and a real yarn.

Also submitted herewith are copies of electronically simulated yarn.

Compared to the copies of real yarn those electronically simulated yarn lengths have lost nearly all of their individuality since it is impossible to measure and store, for instance, 50 to 500 meters of yarn with such a quality that the appearance of the yarn corresponds to the real yarn.

Moreover even with currently available technology, it is not possible to print better representations of a yarn since the electronical simulation technique is rather poor compared to the real yarn appearance as shown in the firstly mentioned copy.

This means the following:

Even nowadays it is impossible to electronically do more than just to cut out severe yarn faults This system only allows to cut out parts of a yarn which are too thick or much too thin.

From the electronically simulated yarn even nowadays it is absolutely impossible to predict the fabric quality.

Moreover: the word

fabric

does not only mean a woven or knitted cloth. In the textile technology as mentioned in the enclosed extract from Webster's Third New International dictionary or in the International Guide for Textile Expressions, the word "fabric" also means "product".

The man versed in the art does not have any indication how various sorts of weaving or knitting products could look if a yarn of this or that sort is used.

A good judgment is only possible if more than just 50 of 500 meters of a yarn are measured.

Even if the samples would be 1000 meters in length such length represents only 500 meters of yarn, and 500 meters of yarn results only in less than five per cent of the whole appearance a fabric should have.

Therefore, the present invention starts from an already cleared yarn and shows which sort of fabric would look best when such a yarn is used.

This means that the present invention optimizes the development of equal woven fabric.

The invention does not contemplate judging the appearance of a woven fabric after a short length of the yarn has been cleared.

Moreover: the CCD-technique was known more than a generation before the present invention was made.

When such a technique is not used for nearly thirty years then it is not on the way to the present invention and also is not easily to be perceived.

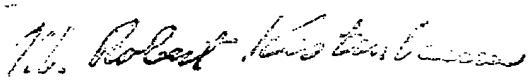
As the print and screen of our computers is too small in length, the whiteboard and the yarn display must be cut in quarters so that electronically one sees only a quarter of the whole picture. This makes electronic evaluation absolutely unusable.

Response Under 37 CFR 1.116
Expedited Procedure
Examining Group 2125

A two-month extension of time in which to respond to the outstanding Office Action is hereby requested. Credit Card Payment Form PTO-2038 in enclosed to cover the prescribed Small Entity two-month extension fee of $225.00.

Wherefore, further consideration and allowance of the claims is respectfully requested.

Respectfully submitted,



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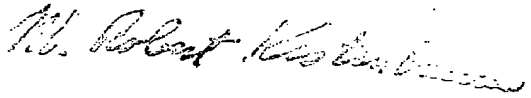
I hereby certify this correspondence is being submitted to Commissioner for Patents, Washington, D.C. 20231 by facsimile transmission on March 5, 2005, fax number (703) 872-9306.



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